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**US Army Corps  
of Engineers**  
Waterways Experiment  
Station

## **National Summary of Ongoing Wetlands Research by Federal Agencies (1992)**

Compiled by the US Army Corps of Engineers  
Wetlands Research Program

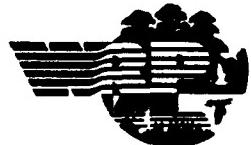


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July 1992 – Final Report  
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Task		Task	
CP	Critical Processes	RE	Restoration & Establishment
DE	Delineation & Evaluation	SM	Stewardship & Management

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# **Introduction**

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The purpose of this document is to provide a reference source for Federal and State agencies, academia, and private organizations on current wetlands research being conducted by Federal agencies. It is hoped this information will allow mutual interaction and partnering of research activities where appropriate and feasible, resulting in efficient and wise use of available resources.

This first edition is the result of agreements among Federal agencies comprising an ad hoc committee on wetlands research and development hosted by the U.S. Army Corps of Engineers in Washington, DC, in November 1990 and December 1991. Representatives of 13 Federal agencies involved in wetlands research attended one or both of the meetings. The committee will continue to meet on an annual basis to further facilitate interagency coordination and cooperation and will seek to integrate their efforts with other coordination initiatives under way at various government levels.

This edition consists of information provided by eight Federal agencies. It is recognized that agencies other than those represented in this document are conducting research in wetlands. It is also recognized that all of the research being conducted by those agencies represented herein is not included. Requests have been made to acquire this information, and assurances have been forthcoming. Rather than delay, the committee felt it important to publish this first edition, and later build on it as other information becomes available.

The committee's goal is to continue to update this document and to publish an updated version annually in January. Agencies wishing to contribute are invited at any time to submit information in the one-page format provided at the end of this document. Send the completed one-pagers to USAE Waterways Experiment Station, ATTN: CEWES-EP-W (Wetlands Research Program), 3909 Halls Ferry Road, Vicksburg, MS 39180-6199. Suggestions for improving this document are also welcomed.

U.S. Army Corps of Engineers

SITE	TYPE*	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
FL	E	Hollis H. Allen and Mary M. Davis USAE Waterways Experiment Station ATTN: CENES-ER-W 3909 Hall's Ferry Road Vicksburg, MS 39180-6199 601/634-3845 and 601/634-2853	USAE Jacksonville District, Florida Dept. of Corrections, Charlotte County Correctional Facility	Wetland Restoration of Diked Agricultural Areas	Document and develop mitigation techniques for existing diked agricultural fields formerly containing wet prairie, marsh, and forested wetlands. Assess effectiveness and success of the mitigation effort.	USACE Wetlands Research Program, with logistical and staff support from Charlotte County Correctional Facility	FY91	FY94
OR	C,E	Hollis H. Allen and Mary M. Davis USAE Waterways Experiment Station ATTN: CENES-ER-W 3909 Hall's Ferry Road Vicksburg, MS 39180-6199 601/634-3845 and 601/634-2853	USAE Portland District, Lane Council of Governments, USEPA Corvallis Laboratory	Wetland Restoration of Forested Wetlands and Wet Prairies in the Willamette Valley, Oregon	Document and develop mitigation techniques for restoring forested and prairie wetlands in depressional agricultural fields. Assess effectiveness and success of the mitigation effort.	USACE Wetlands Research Program, with logistical and staff support from the USEPA Corvallis Laboratory	FY91	FY94
MN	C,E	Hollis H. Allen and Mary M. Davis USAE Waterways Experiment Station ATTN: CENES-ER-W 3909 Hall's Ferry Road Vicksburg, MS 39180-6199 601/634-3845 and 601/634-2853	USAE St. Paul District, USFWS, Minnesota DNR, Wisconsin DNR	Use of Bioengineering Techniques to Stabilize Island Shorelines and Coordinate Long-term Monitoring of Wetland Restoration at Weaver Bottoms, Minnesota	Conduct a bio-engineering project on eroding shorelines of waterfowl nesting islands in Weaver Bottoms, and evaluate its success. Coordinate the interagency long-term monitoring program at Weaver Bottoms, Minnesota	USACE Wetlands Research Program, with logistical and staff support from the USFWS and the States of Minnesota and Wisconsin	FY91	FY94

NOTE: A listing of abbreviations used in this table can be found on page 69.

\* Key for Wetland Study Types

A - Marine    B - Estuarine    C - Riverine    D - Lacustrine    E - Palustrine

SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
SC	D	Hollis H. Allen and Mary M. Davis USAE Waterways Experiment Station ATTN: CEMES-ER-W 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-3845 and 601/634-2853	USAE Savannah District, US Department of Energy, Savannah River Plant	Fresh Marsh Establishment at L-Lake, SC	Document and develop marsh establishment techniques for the shoreline of a small lake system. Assess effectiveness and success of establish- ment and the mitigation project.	USACE Wetlands Research Program, with logistical and staff support from the Savannah River Plant	FY91	FY94
PA	D	Hollis H. Allen USAE Waterways Experiment Station ATTN: CEMES-ER-W 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-3845	USDA SCS, USAE Baltimore District	Wetlands Vegeta- tion Management on Couanesque Reservoir	Determine appropriate plant species that can grow under reservoir water level operating constraints. Determine measures to be taken to protect and manage such plants.	USACE Wetlands Research Program	FY91	FY94
OR	D,E	Hollis H. Allen USAE Waterways Experiment Station ATTN: CEMES-ER-W 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-3845	USDA SCS, USAE Portland District	Wetlands Vegeta- tion Management on Fern Ridge Reservoir	Determine appropriate plant species that can grow under reservoir water level operating constraints. Determine measures to be taken to protect and manage such plants.	USACE Wetlands Research Program	FY91	FY94
KS	D,E	Hollis H. Allen USAE Waterways Experiment Station ATTN: CEMES-ER-W 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-3845	USDA SCS, USAE Kansas City District	Wetlands Vegeta- tion Management on Tuttle Creek	Determine appropriate plant species that can grow under reservoir water level operating constraints. Determine measures to be taken to protect and manage such plants.	USACE Wetlands Research Program	FY91	FY94

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MO	C,E	Hollis M. Allen USAE Waterways Experiment Station ATTN: CEWES-ER-W 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-3845	USAE St. Louis District, USDA SCS	Wetlands Vegetation Management in Riverlands Environmental Demonstration Area	Determine appropriate plant species that can grow under various hydrological and soil conditions. Determine measures to be taken to protect and manage such plants.	USACE Wetlands Research Program	FY91	FY94
SC	B	Douglas G. Clarke USAE Waterways Experiment Station ATTN: CEWES-ER-C 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-3770	USAE Charleston District, Port of Georgetown, Clemson University, State of South Carolina	Evaluation of the Winyah Bay Wetland Establishment Project	Continue monitoring and evaluate the Winyah Bay salt marsh establishment site at selected locations representing the different stages of colonization occurring, including fish, benthos, wildlife, vegetation, sediments and soils, and macroinvertebrates. The site will also continue to be compared to a natural salt marsh in Winyah Bay estuary.	USACE Wetlands Research Program, with logistical and staff support from USAE Charleston District	FY91	FY94
NC	B	Douglas G. Clarke USAE Waterways Experiment Station ATTN: CEWES-ER-C 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-3770	USAE Wilmington District, NOAA NMFS, Clemson University, State of North Carolina	Analysis of Data and Continued Evaluation of Three NMFS Coastal Sites in North Carolina	Analyze existing data and continue evaluation of three wetland experimental sites designed by NOAA NMFS and built by the USAE Wilmington District in 1987.	USACE Wetlands Research Program	FY91	FY94

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TX	B	Douglas G. Clarke USAE Waterways Experiment Station ATTN: CEWES-ER-C 3909 Hall's Ferry Road Vicksburg, MS 39180-6199 601/634-3770	USAE Galveston District, Port of Houston, Texas A&M University, USFWS, USDA SCS, NOAA NMFS	Evaluation of the Three Bolivar Peninsula Wetland Establishment Project Sites	Continue monitoring and evaluate the Bolivar Peninsula salt marsh establishment site at selected locations representing 1975 plantings, 1982 plant- ings, and a control (unplanted, unstabili- zed area). This includes fish, benthos, macroinvertebrates, wildlife, vegetation, and soils.	USACE Wetlands Research Program, with logistical and staff support from USAE Galves- ton District	FY91	FY94
WA	B	Douglas G. Clarke USAE Waterways Experiment Station ATTN: CEWES-ER-C 3909 Hall's Ferry Road Vicksburg, MS 39180-6199 601/634-3770	USAE Seattle District, Port of Seattle, Univer- sity of Washington, on, Washington Dept. of Ecology, USFWS, NOAA NMFS, USEPA	Evaluation of the Lincoln Avenue Wetland Mitiga- tion Site	Continue monitoring and evaluate the Lincoln Avenue Wetland Mitiga- tion Site for benthos, macroinvertebrates, fish and wildlife, and marsh and seagrass planting success.	USACE Wetlands Research Program, with logistical and staff support from USAE Seattle District and the University of Washington	FY91	FY94
FL	D	Al Cofrancesco USAE Waterways Experiment Station ATTN: CEWES-ER-A 3909 Hall's Ferry Road Vicksburg, MS 39180-6199 601/634-3182	Donnie Kinard USAE Jacksonville District PO Box 4970 Jacksonville, FL 32232-0019 904/791-2255	Management of Insects and Exotic Plant Pest Problems in Wet- land Habitats	Minimize problems caused by exotic plants in the wetland habi- tats. The main problem plant species is <u>Nel- euia guineensis</u> .	USACE Wetlands Research Program	FY91	FY93
ND	D	Al Cofrancesco USAE Waterways Experiment Station ATTN: CEWES-ER-A 3909 Hall's Ferry Road Vicksburg, MS 39180-6199 601/634-3182	Leroy Phillips USAE Omaha District Box 1562 Williston, ND 58801 701/572-6404	Management of Insects and Plant Pest Problems in Wetland Habitats	Evaluate current mos- quito control methods and examine new control technologies.	USACE Wetlands Research Program	FY91	FY93

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SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
MN	C	Al Cofrancesco USAE Waterways Experiment Station	Dick Otto USAE St. Paul District 300 South 1st St. La Crescent, MN 55947 ATTN: CEVES-EP-A 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-3182	Management of Insects and Plant Pest Problems in Wetland Habitats	Minimize problems caused by exotic plants in wetland habitats. The main problem plant species is purple loosestrife ( <i>Lythrum salicaria</i> ).	USACE Wetlands Research Program	FY91	FY93
MS	B	Jack E. Davis USAE Waterways Experiment Station	Louisiana State University	Critical Processes in Wetlands: Wind Wave-Process and Wave-Induced Erosion	Study wave generation and propagation and wave-induced erosion in a coastal wetland environment.	USACE Wetlands Research Program	FY91	FY94
TX	B	Jack E. Davis and Stephen T. Maynard USAE Waterways Experiment Station	USAE Galveston District, USFWS, NOAA NMFS, Texas A&M University	Araensa NWR/West Bay Erosion Control and Wetland Restoration Study	Design and evaluate the use of shoreline protection coupled with wetland restoration plantings and their influence on existing wetlands and wildlife in the study areas.	Primarily USAE Galveston District and the USACE Wetlands Research Program	FY91	FY94
MD	B	Jack E. Davis and Stephen T. Maynard USAE Waterways Experiment Station	USAE Baltimore District, USFWS, Maryland DNR, Maryland Open Lands Program	Restoration of Black Duck Habitat at Backin Island, Maryland	Design and evaluate the use of island and shoreline protection coupled with wetland restoration plantings in providing stable nesting and brood habitat for black ducks and other wildlife.	USAE Baltimore District, the State of Maryland, and the USACE Wetlands Research Program, with logistical and staff support from the US WS Annapolis Field Office	FY91	FY94

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N/A	C,D	Mark Dorch USAE Waterways Experiment Station ATTN: CEWES-ES-Q 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-3517		Critical Processes in Wetlands: Water Quality	Investigate water quality enhancement processes in wetlands and develop quantitative methods for prediction.	USACE Wetlands Research Program	FY91	FY94
R1	B	Jack E. Davis and Stephen T. Maynard USAE Waterways Experiment Station ATTN: CEWES-HS-S 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-3006 and 601/634-3284	USAE New England Division, State of Rhode Island	Galilee Bird Sanctuary Wetland Restoration Study	Design and evaluate modifications of shoreline structures that currently block intertidal flow into the sanctuary marshes, and removal fill from the existing marsh. Recovery of the existing marsh will be evaluated.	USACE Wetlands Research Program and the USAE New England Division	FY91	FY94
N/A	B,C, D	Bruce Ebersole USAE Waterways Experiment Station ATTN: CEWES-CR-P 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-3209		Critical Processes in Wetlands: Groundwater	Investigate groundwater processes within wetlands and develop quantitative methods for prediction.	USACE Wetlands Research Program	FY91	FY94
N/A	B,C, D	Bruce Ebersole USAE Waterways Experiment Station ATTN: CEWES-CR-P 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-3209		Critical Processes in Wetlands: Surface Water	Investigate surface water processes within wetlands and develop quantitative measures for prediction.	USACE Wetlands Research Program	FY91	FY94
W1, W2	D	Mark R. Graves USAE Waterways Experiment Station ATTN: CEWES-EN-B 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-2557	NASA, USEPA	Wetland Change Assessment	Assess the utility of remote sensing data from various platforms for change assessment and cost-effective monitoring of wetlands.	USACE Wetlands Research Program	FY91	FY93

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AR	C	Mark R. Graves USAE Waterways Experiment Station ATTN: CEWES-EN-B 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-2557		Wetland Change Assessment	Assess the utility of remote sensing data from various platforms for change assessment and monitoring of bottomland hardwood wetland.	USACE Wetlands Research Program	FY91	FY93
LA	C	Mark R. Graves USAE Waterways Experiment Station ATTN: CEWES-EN-B 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-2557	USFWS "National Wetlands Research Center	Wetland Change Assessment	Assess the utility of remote sensing data from various platforms for change assessment and monitoring of bottomland hardwood wetland.	USACE Wetlands Research Program	FY91	FY93
N/A	A,B, C,D, E	Jim Henderson USAE Waterways Experiment Station ATTN: CEWES-ER-R 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-3305	Louisiana State University	Economic Values of Wetlands	Identify the economic, social, and public-use values of wetlands.	USACE Wetlands Research Program	FY91	FY94
NY	D	Jack Killgore USAE Waterways Experiment Station ATTN: CEWES-ER-A 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-3397	Len Bryniarski USAE Buffalo District ATTN: CENCB-PD-ER 1776 Niagara St. Buffalo, NY 14207-3199 716/879-4173	Fish Habitat Management, Wetland Stewardship and Management	Compare larval fish abundance between natural and man-made wetlands. Develop water-level management guidelines and recommend engineering design features for small sub-impoundments constructed in lakes.	USACE Wetlands Research Program	FY91	FY94

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MS	Jack Killgore USAE Waterways Experiment Station ATTN: CEWES-ER-A 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-3397	D	Steve Reed USAE Vicksburg District ATTN: CELMK-PD-Q PO Box 60, Vicksburg, MS 39180-0060 601/631-5433	Fish Habitat Management, Wetland Stewardship and Management	Determine species richness and relative abundance of fishes utilizing artificial spawning beds in the fluctuation zone of reservoirs.	USACE Wetlands Research Program	FY91	FY94
IL	Barbara A. Kleiss USAE Waterways Experiment Station ATTN: CEWES-ER-W 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-3836	C,E	USAE Chicago District, USEPA, Ohio State University, Wetlands Research, Inc.	Des Plaines River Wetlands Demonstration Project	Determine the impact of hydrologic loading rates on wetland functions in established wetlands. Compare the structure and functions of these man-made wetlands to botanically similar natural wetlands in the same geographic area.	USACE Wetlands Research Program	FY91	FY94
OH	Barbara A. Kleiss USAE Waterways Experiment Station ATTN: CEWES-ER-W 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-3836	E	USAE Louisville District, Wright State University, Beaver Creek Wetlands Association	Beaver Creek Fen Wetlands Demonstration Project	Investigate the possibility of establishing wetlands using free-flowing wells as the primary source of hydrology.	USACE Wetlands Research Program, with logistical and staff support from Wright State University, USAE Louisville District, and Beaver Creek Association	FY91	FY94
AR	Barbara A. Kleiss, USAE Waterways Experiment Station ATTN: CEWES-ER-W 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-3836	C,E	USGS, Ouachita Baptist Univ., Tennessee Technological Univ., University of Arkansas	Cache River Studies	Characterize physical and biological functions of a bottomland hardwood wetland, including hydrology, sedimentation, water quality, vegetation, fisheries, and wildlife.	USACE Wetlands Research Program	Oct 1987	Sep 1993

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TN, KY	E	Charles V. Klinas USAE Waterways Experiment Station ATTN: CEIRES-ER-W 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-2983	North Carolina State University, Tennessee Valley Authority, USEPA (Atlanta), USAE Nashville District	Functional Investigations of Bottomland Hardwood Embankment Plantings at Kentucky Lake	Determine whether basic ecological processes (e.g., decomposition, nutrient cycles) are functioning within hardwood forests planted more than 40 years ago.	USACE Wetlands Research Program, Tennessee Valley Authority, private industry source	FY91	FY94
MS	E	Charles V. Klinas USAE Waterways Experiment Station ATTN: CEIRES-ER-W 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-2983	USFWS, USAE Vicksburg District, USFS (Stoneville), Mississippi State University, Tennessee Technological University	Lake George Bottomland Hardwoods Reforestation Study	Investigate wildlife values and development of plant communities during early stages of recovery following planting, including: (1) characterization of habitat structure, (2) documentation of early succession, and colonization, and (3) use by small mammals and birds, with attention to proximity to existing forests. Investigate techniques to improve restoration success, including effects of site factors, season of planting, propagule types, species, and interspecific competition.	USACE Wetlands Research Program, USFS, USAE Vicksburg District, State of Tennessee Water Center	FY91	FY94
N/A	C,D	William A. (Tony) Thomas USAE Waterways Experiment Station ATTN: CEIRES-HR 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-2511			Critical Processes in Wetlands: Sedimentation	USACE Wetlands Research Program	FY91	FY94

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US	B,C,D,E	Mary C. Landin USACE Waterways Experiment Station ATTN: CENES-ER-W 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-2942	USFWS, USEPA, USFS, USDA SCS, NOAA NMFS, USDI Bureau of Reclamation, US Department of Energy, Canadian Fish and Wildlife Service, US Army and US Navy, all US Army Engineer Districts and Divisions, 26 State agencies, 6 county/local governments, port commissions, private permit applicants (mitigation projects), Ducks Unlimited, Inc.	Wetlands Restoration, Protection, and Establishment	Determine and test environmental and engineering criteria, protocols, equipment, structures, techniques, and methodologies for wetlands restoration, protection, and establishment. Demonstrate and evaluate wetlands restoration, protection, and establishment of representative wetland types at 27 field demonstration sites in a cooperative inter-agency spirit. Complete technical guidelines and protocols for wetlands engineering, design criteria, mitigation, monitoring standards, and success criteria. Conduct national-level workshops on wetlands engineering and wetlands restoration.	USACE Wetlands Research Program with other agencies and sources	FY91	FY94

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US	Mary C. Landin USACE Waterways Experiment Station	B,C, D,E	USFWS, USEPA, USFS, USDA SCS, NOAA NMFS, USDI Bureau of Reclamation, US Department of Energy, Canadian Fish and Wildlife Service, Tennessee Valley Authority, Minerals Management Service, US Army and US Navy, 20 US Army Engineer Districts, 9 US Army Engineer Divisions, 26 State agencies, 6 county/local governments, port commissions, private permit applicants (mitigation projects), Ducks Unlimited Inc.	Wetlands Field Demonstrations	Field test criteria, protocols, engineering, techniques, and methodologies for wetlands restoration, protection, and establishment. Demonstrate and evaluate wetlands restoration and establishment of representative wetland types in a cooperative interagency spirit.	USACE Wetlands Research Program plus cost sharing with other agencies and organizations	FY91	FY94
OR	Mary C. Landin USACE Waterways Experiment Station	B,C	USAE Portland District, USFWS, NOAA NMFS, Oregon DNR (Washington), Dept. of Ecology, Port of Portland	Wetlands Establishment Comparison Studies as Part of the Lower Columbia River Long Term Management Strategy (LTMS)	Continue comparison of the man-made wetlands at Miller Slough Island with 3 natural reference wetlands and extrapolate that information as part of the Lower Columbia River LTMS	USACE Wetlands Research Program and USAE Portland District, with logistic and staff support from USEPA, NOAA NMFS, and Port of Portland	FY91	FY94

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MI, Canada	D	Mary C. Landin USAE Waterways Experiment Station ATTN: CEINES-ER-W 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-2942	USAE Detroit District, Michigan DNR, USFWS, Canadian Fish and Wildlife Service, Ducks Unlimited, Inc.	Comparison of the Pointe Mouillee Wetland Restoration and Protection Project to a Natural Wetland in the Canadian Great Lakes	Continue to conduct long-term monitoring at the 4,600-acre Pointe Mouillee wetland restoration and protection site while beginning data collection at a selected natural wetland in Western Lake Erie in Ontario, Canada. Compare the wetlands recovering at Pointe Mouillee to those of a similar natural wetland in Lake Erie.	USACE Wetlands Research Program, with Section 150 funds from Ducks Unlimited, Inc., and logistical support from USAE Detroit District and Michigan DNR	FY91	FY94
CA	B	Mary C. Landin USAE Waterways Experiment Station ATTN: CEINES-ER-W 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-2942	USAE San Francisco District, California Coastal Commission, California Dept. of Game, USFWS, Alameda Flood Control District	Comparison of Two Man made Salt Marshes to Natural Salt Marshes in San Francisco Bay, with Extrapolation to Three Planned Salt Marshes	Continue long-term monitoring of Salt Pond #3 and three natural salt marshes in South San Francisco Bay and cooperate in continued long-term data collection at Muzzi Marsh at Tiburon, CA. Apply lessons learned and suitable design criteria and techniques for restoring diked subsided land to intertidal salt marshes at (in order of funding priority); (1) Hamilton Antenna Field, (2) Sonoma Baylands, and (3) Cullinan Ranch.	USACE Wetlands Research Program, also Landowners Alemeda Flood Control District, USFWS, California Dept. of Game, Sonoma Baylands Trust, California Coastal Commission, with Logistic and staff support from USAE San Francisco District and the US Army	FY91	FY94

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AL, MS	B	Mary C. Landin USAE Waterways Experiment Station ATTN: CEES-ER-W 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-2942	USAE Mobile District, Alabama State Docks, Alabama DNR, Mississippi DNR, USFWS, Ingalls Ship Yard, US Navy	Comparison of Man made Salt Marshes to Selected Natu- ral Marshes in Mobile Bay and Mississippi Sound	Continue long-term data collection at Gaillard Island, renew data col- lection at other man- made marshes in the vicinity, and select and begin data collec- tion at natural marshes within Mobile Bay.  Compare man-made marshes to the natural marshes and provide information gained for use at other sites or midcourse correction at same sites in Mobile Bay and Mississippi Sound.	USACE Wetlands Research Program, with logistical and staff support from the USAE Mobile District and Alabama State Docks	FY91	FY94
GA	B,C	Mary C. Landin USAE Waterways Experiment Station ATTN: CEES-ER-W 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-2942	USAE Savannah District, Georgia DNR	Comparison of a South Atlantic Man made Salt Marsh to Natu- rally Occurring Salt Marshes	Continue long-term mon- itoring of the Butter- milk Sound salt marsh and three nearby natural salt marshes and extrapolate those data to planned salt marsh projects in the South Atlantic region.	USACE Wetlands Research Program, with logistical and staff support from the USAE Savannah District	FY91	FY94

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MD	B	Mary C. Landin USAE Waterways Experiment Station ATTN: CEWES-ER-N 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-2942	Aberdeen Proving Ground, US Army, US Navy, USAE Baltimore District, USFWS, Maryland DNR	Intertidal Fresh Marsh Restoration on Chesapeake Bay and the Bush River	Use long-term data and information gained from other manmade marshes in Chesapeake Bay to design and implement more than 100 acres of fresh marsh restoration at two sites in the Chesapeake Bay and the Bush River. Establish a long-term monitoring plan for these sites, including comparison of existing natural intertidal fresh marshes on Aberdeen Proving Ground.	Aberdeen Proving Ground, with research staff support of the USAE Wetlands Research Program	FY91	FY94
WY	C	Robert L. Lazor USAE Waterways Experiment Station ATTN: CEWES-ER-N 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-2935	USAE Walla Walla District, USFWS, USDA SCS, Wyoming Game and Fish Commission, Trout Unlimited, Inc., Teton County, Wyoming	Restoration and Establishment of Western Riparian Marsh and Shrub Habitats	Monitor vegetation, soils, and hydrology at one or more selected Snake River wetland sites. Evaluate the effectiveness of riparian restoration methods and techniques.	USACE Wetlands Research Program, with logistical and staff support from State and local agencies and the USAE Walla Walla District	FY91	FY94
WY	C	Robert L. Lazor USAE Waterways Experiment Station ATTN: CEWES-ER-N 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-2935	USAE Huntington District, Marshall University, West Virginia DNR	Restoration and Establishment of Riparian Habitats at Green Bottoms Wildlife Management Area	Monitor vegetation, soils, and hydrology at one or more selected Green Bottoms wetland sites. Evaluate the effectiveness of riparian restoration methods and techniques.	USACE Wetlands Research Program, West Virginia DNR, with logistical and staff support from Marshall University and the USAE Huntington District	FY91	FY94

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U.S. Army Corps of Engineers

SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
CA	C	Robert L. Lazor USAE Waterways Experiment Station ATTN: CEMES-ER-W 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-2935	USAE Sacramento District, USDA SCS, California Dept. of Water Resources, University of California-Davis, Ducks Unlimited, Inc., USFWS, USDI Bureau of Reclamation	Restoration and Establishment of Western Riparian Marsh and Shrub Habitats	Monitor vegetation, soils, and hydrology at two sites, Cache Slough and Sacubran, in the 66,000-acre Yolo Bypass Restoration Project. Evaluate the effectiveness of riparian restoration methods and techniques.	USACE Wetlands Research Program, Ducks Unlimited, Inc., with logistical and staff support from State agencies, USAE Sacramento District, and USFWS	FY91	FY94
N/A	A,C,D	Charles R. (Dick) Lee USAE Waterways Experiment Station ATTN: CEMES-ES-R 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-2845	To be determined	Critical Soil and Biological Processes	Identify indicators of wetland soil and biological processes. Identify potential techniques for determining indicators. Test potential techniques for delineating wetland soils. Test potential techniques for quantifying wetland functions.	USACE Wetlands Research Program	FY91	FY94
LA	B	Joseph V. Letter USAE Waterways Experiment Station ATTN: CEMES-HE 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-2845	USAE New Orleans District, Plaquemines Parish	Naomi/West Point Siphon Study	Evaluate engineering and cost effectiveness of using river siphon systems to minimize erosion and subsidence and restore wetlands adjacent to the lower Mississippi River.	USACE Wetlands Research Program, with logistical and staff support from USAE New Orleans District and Louisiana DNR	FY91	FY94
LA	B	Joseph V. Letter USAE Waterways Experiment Station ATTN: CEMES-HE 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-2845	USAE New Orleans District, Louisiana DNR, Plaquemines Parish	Lower Mississippi River Delta Splays	Evaluate engineering and cost effectiveness of using natural and man-made river splays to minimize erosion and subsidence and to restore wetlands adjacent to the lower Mississippi River.	USACE Wetlands Research Program, with logistical and staff support from USAE New Orleans District and Louisiana DNR	FY91	FY94

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SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
LA	B	Joseph V. Letter USAE Waterways Experiment Station ATTN: CEWES-HE 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-2845	USAE New Orleans District, Louisiana DNR, Plaquemines Parish	Wetland Restoration Using Unconfined Dredged Material Placement at Southwest Pass	Evaluate engineering and cost effectiveness and refine techniques of using unconfined dredged material placement beyond the natural river berms on the southwestern side of Southwest Pass to minimize erosion and subsidence and to restore wetlands.	USACE Wetlands Research Program, with logistical and staff support from USAE New Orleans District and Louisiana DNR	FY91	FY94
LA	B	Joseph V. Letter USAE Waterways Experiment Station ATTN: CEWES-HE 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-2845	USAE New Orleans District, Louisiana DNR, Plaquemines Parish	Fine la Terre Mitigation Bank Study	Evaluate engineering and cost effectiveness of marsh management structures and techniques at Fine la Terre mitigation bank site to minimize salt water intrusion and subsidence and to improve wetland values.	USACE Wetlands Research Program, with logistical and staff support from USAE New Orleans District and Louisiana DNR	FY91	FY94
N/A	C,D, E	Chester O. Martin USAE Waterways Experiment Station ATTN: CEWES-ER-R 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-3958	USDA SCS Texas A&M University Gaylord Memorial Laboratory University of Missouri	Technology for Managing Wetlands	Identify existing technology pertinent to wetlands stewardship. Develop handbook of cost-effective management techniques. Develop guidebook on establishing and managing wetland plants.	USACE Wetlands Research Program	FY91	FY94
CO	E	Tommy E. Myers USAE Waterways Experiment Station ATTN: CEWES-EE-S 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-3939	Cherry Creek Basin Water Quality Authority 6200 South Syracuse Way, #150 Englewood, CO 80111	Non-Point Source Pollution (NPSP) Management at CE Controlled Wetlands	Evaluate effectiveness of wetlands for NPSP abatement. Investigate factors affecting treatment efficiency. Develop guidelines for design and management.	USACE Wetlands Research Program, Cherry Creek Basin Water Quality Authority	FY91	FY94

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U.S. Army Corps of Engineers

SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
TX	E	Tommy E. Myers USAE Waterways Experiment Station ATTN: CE/EES-EE-S 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-3939		NPSP Management at USAE Controlled Wetlands	Evaluate effectiveness of wetlands for NPS abatement. Investigate factors affecting treatment efficiency. Develop guidelines for design and management.	USACE Wetlands Research Program, USAE Fort Worth District	FY91	FY94
ND	E	Tommy E. Myers USAE Waterways Experiment Station ATTN: CE/EES-EE-S 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-3939	Roger Smith Ducks Unlimited, Inc. 6115 East Main Avenue Bismarck, ND 58501 701/258-5599	NPSP Management at USAE Controlled Wetlands	Evaluate effectiveness of wetlands for NPS abatement. Investigate factors affecting treatment efficiency. Develop guidelines for design and management.	USACE Wetlands Research Program, Bowman-Slope Soil Conservation District, Ducks Unlimited, Inc.	FY91	FY94
IA	E	Tommy E. Myers USAE Waterways Experiment Station ATTN: CE/EES-EE-S 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-3939	Ollie Kaldenberg Chariton Valley RC&D, Inc. PO Box 398 Centerville, IA 52544 515/437-4376 Wayne and Appanoose County Centerville, IA 52544	Non-Point Source Pollution Management at CE Controlled Wetlands	Evaluate effectiveness of wetlands for NPS abatement. Investigate factors affecting treatment efficiency. Develop guidelines for design and management.	USACE Wetlands Research Program, Wayne and Appanoose Counties	FY91	FY94

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SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
US	B,C, D,E	Michael R. Palermo USAE Waterways Experiment Station ATTN: CEWES-EE 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-3753	Coordinating with agencies involved with demonstration sites in Restoration, Protection and Establishment Work Unit	Techniques, Structures, and Equipment for Wetlands Restoration, Protection, and Establishment	Identify and evaluate techniques for wetlands restoration, protection, and establishment to include: wetland hydrology and elevations, soils handling and site preparation, bioengineering and plant propagation, engineering structures and techniques.	USACE Wetlands Research Program	FY91	FY94
N/A	N/A	Barry S. Payne USAE Waterways Experiment Station ATTN: CEWES-ERA 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-3837	USFWS, USDA SCS, NOAA NMFS, USFS, FFWA, USEPA, USDI Bureau of Reclamation	Development of Monitoring Standards and Success Criteria for Wetlands Restoration	Develop multi-agency guidelines for success criteria and monitoring of restored and established wetlands.	USACE Wetlands Research Program	FY91	FY94
MS	D	Richard E. Price USAE Waterways Experiment Station ATTN: CEWES-ESA 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-3449	Mississippi Game and Fish Commission, USDA SCS	Sediment Management in Small Impoundments	Determine the amount of sediment deposited in small impoundments created by the State Game and Fish Commission and determine the relationship between the hydrology and sediment deposition.	USACE Wetlands Research Program	FY91	FY93
CA	D	Richard E. Price USAE Waterways Experiment Station ATTN: CEWES-ESA 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-3449	Ned Euliss USFS Northern Prairie Wildlife Research Center Jamestown, ND 58401 701/252-5363 Other State and local agencies may also become involved.	Sediment Management in Reservoir Fluctuation Zone	Construction of small wetlands in the fluctuation zone of the reservoir, monitoring of the hydrology and sediment process and the development of management criteria for wetlands of this type.	USACE Wetlands Research Program	September 1991	December 1993

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U.S. Army Corps of Engineers

SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
N/A	N/A	Lawson M. Smith USAE Waterways Experiment Station ATTN: CEAMES-GG-Y 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-2497	Coordinating with agencies involved with demonstration sites in Wetlands Restoration, Protection, and Establishment Work Unit	Improving Wetlands Design Criteria	Determine, test, and develop environmental and engineering design criteria for priority needs and wetland types identified by USACE field offices. Complete preliminary technical guidelines and protocols already initiated for wetland restoration, protection, and establishment for mitigation projects.	USACE Wetlands Research Program	FY91	FY94
N/A	A,B, C,D, E	Lawson M. Smith USAE Waterways Experiment Station ATTN: CEAMES-GG-Y 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-2497		Regional Evaluation of Wetlands	Develop a procedure for evaluating wetlands in a regional context.	USACE Wetlands Research Program	FY91	FY94
N/A	A,B, C,D, E	Lawson M. Smith USAE Waterways Experiment Station ATTN: CEAMES-GG-Y 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-2497	FHWA, USDA SCS, USFWS, USEPA, USACE	Development of Framework for Wetland Systems Management	Development of framework for wetland systems management.	USACE Wetlands Research Program	FY91	FY94
US	A,B, C,D, E	R. Dan Smith USAE Waterways Experiment Station ATTN: CEAMES-FR-W 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-2718	USEPA, USFWS, FHWA	Evaluation of Wetland Functions	Refine current methods for wetland functional assessment by developing models for individual functions performed by different hydrogeomorphic wetland types.	USACE Wetlands Research Program	FY91	FY94

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SITE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE	
US	A,B, C,D, E	R. Dan Smith USAE Waterways Experiment Station ATTN: CEMES-ER-W 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-2118	East Carolina University	A Hydrogeomorphic Classification of Wetlands	Develop a hydrogeomorphic classification for assessment of wetland functions.	USACE Wetlands Research Program	FY91	FY94
KS	D,E	James Teaford USAE Waterways Experiment Station ATTN: CEMES-ER-W 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-2370	USAE Kansas City District, USFWS, Ducks Unlimited, Inc., USDA SCS	Moist Soil Management Studies at Harry S. Truman Reservoir	Develop subimpoundment on 200 acres of lowland. Develop moist-soil management guidelines for waterfowl and other wildlife.	USACE Wetlands Research Program	FY91	FY94
ND, MN	D	James Teaford USAE Waterways Experiment Station ATTN: CEMES-ER-W 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-2370	USAE Omaha District, USAE St. Paul District, USFWS, Ducks Unlimited, Inc.	Waterfowl Nesting Studies	Develop a case history of wetland restoration efforts and habitat conditions. Develop wetland management guidelines for waterfowl nesting.	USACE Wetlands Research Program	FY91	FY94
AR	C,E	James Teaford USAE Waterways Experiment Station ATTN: CEMES-ER-W 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-2370	USAE Vicksburg District, USFWS	Greentree Reservoir Management Studies	Develop a case history of greentree management efforts and assess impacts of those efforts on bottomland hardwood habitats. Develop greentree management guidelines for wildlife use.	USACE Wetlands Research Program	FY91	FY94
ME	E	James Teaford USAE Waterways Experiment Station ATTN: CEMES-ER-W 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-2370	USAE New England Division, USFWS Maine Cooperative Wildlife Research Unit	Black Duck Nesting Habitat in Small Manmade Impoundments	Characterize selected impoundments to provide habitat data. Develop guidelines for black duck habitat development in small, manipulated impoundments.	USACE Wetlands Research Program	FY91	FY94

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U.S. Army Corps of Engineers

SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
MA, CT, RI	E	J. S. Wakeley USAE Waterways Experiment Station ATTN: CEMES-ER-W 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-3702	Univ. of Massachusetts, Univ. of Rhode Island, USPA, USDA SCS, Society of Soil Scientists of Southern New England	Soil Morphology as an Indicator of Seasonal High Water Tables	Determine relationships between soil morphology, vegetation, and hydrologic regime. Evaluate standards for drainage classes, soil moisture regimes, and hydric soils.	USACE Wetlands Research Program	FY91	FY94
FL	E	J. S. Wakeley USAE Waterways Experiment Station ATTN: CEMES-ER-W 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-3702	KBN Engineering, Gaines- ville, FL, Univ. of Florida, USDA SCS	Correlation between Hydric Soils and Hydrology	Describe soil morphology at sites of long term groundwater monitoring.	USACE Wetlands Research program	FY91	FY92
OR, AK, SD, MN, IN	E	J. S. Wakeley USAE Waterways Experiment Station ATTN: CEMES-ER-W 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-3702	USDA SCS	Wet Soils Moni- toring Study	Describe trends in soil morphology within areas monitored with redox probes, piezometers, and tensiometers.	USACE Wetlands Research Program	FY91	FY94
N/A	A,B, C,D, E	J. S. Wakeley USAE Waterways Experiment Station ATTN: CEMES-ER-W 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-3702	Louisiana State Univ., Alfred University	Literature Reviews on Oxidized Root Channels and Water-Stained Leaves	Review technical basis for these indicators of wetland hydrology.	USACE Wetlands Research Program	FY91	FY92
MO	E	J. S. Wakeley USAE Waterways Experiment Station ATTN: CEMES-ER-W 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-3702	CEMS Riverlands Area Office, USDA SCS	Effects of Water Table Rise on Soil Chemistry and Morphology	Monitor changes in chemistry and morpho- logy of soils adjacent to the Mississippi River as water table rises due to closure of new lock and dam.	USACE Wetlands Research Program	FY91	FY94

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SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
IL	E	J. S. Walekey USAE Waterways Experiment Station ATTN: CENES-ER-W 3909 Halls Ferry Road Vicksburg, MS 39180-6199 601/634-3702	South Dakota State Univ., Wetlands Research, Inc.	Development of Hydric Soil Characteristics in Constructed Wetlands	Monitor soil morphology and chemistry following creation of wetlands at the Des Plaines Project.	USACE Wetlands Research program	FY91	FY94

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U.S. Environmental Protection Agency

SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
US	A,B,C, D,E	Kenneth J. Adler USEPA, PH-221 Office of Policy, Planning and Evaluation Washington, DC 20046 202/260-2755 or FTS: 260-2755	Dr. Dennis King Chesapeake Biological Laboratory University of Maryland	Economic Assess- ment and Require- ments for Wetland Mitigation Banks	Measurement of sup- ply and demand for mitigation bank credits. Economics of scale for mitigation banks. Market require- ments for the pricing and exchange of mitiga- tion credits.	Office of Policy, Planning and Evaluation USEPA	1990	Contin- uing
US	A,B,C, D,E	Kenneth J. Adler USEPA, PH-221 Office of Policy, Planning and Evaluation Washington, DC 20046 202/260-2755 or FTS: 260-2755	Dr. Dennis King Chesapeake Biological Laboratory University of Maryland	Regional Cost Profiles for Wet- land Restoration and Creation Pro- jects	Develop cost and per- formance curves by type of wetland restoration and creation project for "typical" mitiga- tion projects by region.	Office of Policy, Planning and Evaluation USEPA	1988	Contin- uing
US	A,B,C, D,E	Kenneth J. Adler USEPA, PH-221 Office of Policy, Planning and Evaluation Washington, DC 20046 202/260-2755 or FTS: 260-2755	Dr. Dennis King Chesapeake Biological Laboratory University of Maryland	Compensation Ratios for Wet- land Mitigation	Develop theoretical framework to esti- mate wetland com- pensation ratios. Develop methodology to estimate compen- sation ratios by type of mitiga- tion project.	Office of Policy, Planning and Evaluation USEPA	1989	Contin- uing
To be determined	C,D,E	Eric Preston USEPA 200 SW 35th Street Corvallis, OR 97333 503/757-4666	USEPA Region IX Connecticut College University of Florida	Wetland Creation & Restoration	Compare created & natural wetlands. Pro- duction of guidance document on wetland creation and restoration.	Office of Research & Development, USEPA	1986	Contin- uing

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SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
To be determined	C,D,E	Eric Preston USEPA 200 SW 35th Street Corvallis, OR 97333 503/757-4666	University of Illinois	Cumulative Impacts	Develop a theoretical framework for cumulative impacts and landscape function. Study cumulative effects of Illinois wetlands on landscape function.	Office of Research & Development, USEPA	1986	Continuing
To be determined	E	Eric Preston USEPA 200 SW 35th Street Corvallis, OR 97333 503/757-4666		Constructed Wet-Lands	Study the ecological condition and habitat quality of six free water surface municipal constructed wetlands. Develop a database for 100 municipal constructed wetlands in the U.S.	Office of Research & Development, USEPA	1986	Continuing
To be determined	E	Eric Preston USEPA 200 SW 35th Street Corvallis, OR 97333 503/757-4666	Louisiana State University  King County, WA  University of Wisconsin	Water Quality	Assess recovery of freshwater wetland water-quality status and function following disturbance. Evaluate numeric water quality criteria for wetlands protection.	Office of Research & Development, USEPA	1986	Continuing
To be determined	A,B,C, D,E	Eric Preston USEPA 200 SW 35th Street Corvallis, OR 97333 503/757-4666	Louisiana State University  Iowa State University	Environmental Monitoring & Assessment Program	Provide quantitative assessment of the current status and long-term trends in wetland condition on regional and national scales.	Office of Research & Development, USEPA	1988	Continuing

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U.S. Soil Conservation Service

SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
Ortiz Mountains (near Cerrillos), New Mexico	Constructed	David R. Dreesen Plant Materials Center USDA Soil Conservation Service 1036 Miller St. SW Los Lunas, NM 87031 505/865-4684	Pegasus Gold Corp., Joint Venture	Feasibility Study of Constructed Wetlands to Remove Cyanide and Nitrate from Waste Water from Gold Mining Operations	Determine cyanide and nitrate removal rates in pilot constructed wetland systems using gravel substrates and subsurface flow. Compare contaminant removal efficiency and evapotranspiration among <u>Typha</u> , <u>Scirpus</u> , and <u>Phragmites</u> .	Pegasus Gold Corp.	FY 1991	FY 1993
ID	E	Chris Hoag, Assistant Manager Aberdeen Plant Materials Center USDA Soil Conservation Service PO Box AA 1693 South 2700 West Aberdeen, Idaho 83210	USDI Bureau of Reclamation	American Falls Reservoir Shoreline Project	Evaluate, select, and release cooperatively the best adapted willow and poplar species for critical area stabilization and wildlife enhancement. Evaluate different planting techniques and sizes of cuttings. Drawdown zones and severe wave erosion are major problems.	USDI Bureau of Reclamation	FY87	FY93
MI	C	Philip L. Koch, Manager Plant Materials Center USDA Soil Conservation Service 7472 Stoll Road East Lansing, Michigan 48823-9807 517/641-6300	None	Project 261104E, Assembly and Evaluation of Willow Species ( <u>Salix</u> spp.) for Restoration of Riparian Areas in the Midwest Region	Assemble, evaluate, select, and release one or more superior cultivars for use in stabilizing riparian areas, control soil erosion, improve water quality, and enhance fish and wildlife habitat	USDA SCS	FY92	FY96

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SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
MI	E	Philip L. Koch, Manager Plant Materials Center USDA Soil Conservation Service 7472 Stoll Road East Lansing, Michigan 48823-9807 517/661-6300	None	Project 261104F. Assembly and Evaluation of <i>Equisetum</i> spp.	Select and release source-identified ecotypes for commercial production and distribution.	USDA SCS	FY91	FY95
MI	E	Philip L. Koch, Manager Plant Materials Center USDA Soil Conservation Service 7472 Stoll Road East Lansing, Michigan 48823-9807 517/661-6300	None	Project 2611050. Initial Evalu- ation of Native Wetland Species for Constructed Wetlands in the Great Lakes Region	Study the germination, establishment, and seed production of selected native wetland species - <i>Scirpus</i> spp. and <i>Sparagnum curvigerum</i> .	USDA SCS	FY91	FY95
IL	B,E	Joy E. Harburger, Wetland Plant Ecologist Des Plaines River Wetland Demonstra- tion Project USDA Soil Conservation Service P.O. Box 255 Waukegan, Illinois 708/244-9003	US Environmental Protection Agency 230 South Dearborn Chicago, Illinois	Plant Materials Technology Devel- opment for Wet- land Enhancement, Restoration, and Creation in Cool Temperate Regions of the United States	Identify plant materi- als technology needs, summarize past and cur- rent research, and develop a plan for plant materials tech- nology transfer to the USDA SCS field office level.	USDA SCS	FY91	FY92
ND	E	Delight A. Tober, Manager Plant Materials Center USDA Soil Conservation Service 3310 University Drive Bismarck, North Dakota 58502 701/223-6536	None	Project 381021W, assembly and evaluation of <i>Whitetop</i> <i>Scleria</i> <i>festucacea</i> (Willd.) Link	Select and release northern source- identified ecotypes for commercial production and distribution.	USDA SCS	FY91	FY94

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SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
ND	E	Dwight A. Tobeit, Manager Plant Materials Center USDA Soil Conservation Service 3310 University Drive Bismarck, North Dakota 58502 701/223-8536	None	Project 38102W, assembly and evaluation of prairie cordgrass <u>Spartina</u> <u>Pectinata</u> Link	Select and release northern source- identified ecotypes for commercial production and distribution.	USDA SCS	FY91	FY94
KS	E	Richard L. Wylie, Manager Plant Materials Center USDA Soil Conservation Service 3800 South 20 Street Manhattan, Kansas 66502 913/539-8761	None	Advanced evalua- tion of (PI 421526) common reed <u>Phragmites</u> <u>austriaca</u> Trin	Release and increase of a source-identified ecotype for commercial production.	USDA SCS	FY73- FY74	FY92
KS	E	Richard L. Wylie, Manager Plant Materials Center USDA Soil Conservation Service 3800 South 20 Street Manhattan, Kansas 66502 913/539-8761	None	Initial advanced evaluations of (PI 421595) prairie cordgrass <u>Spartina</u> <u>Pectinata</u> Link	Release and increase of a source-identified ecotype for commercial production.	USDA SCS	FY66- FY70	FY92

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SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
ID	C,E	Gary Young, Manager Aberdeen Plant Mate- rials Center USDA Soil Conservation Service PO Box AA 1633 South 2700 West Aberdeen, Idaho 83210	US Bureau of Land Management, USDI Bureau of Reclama- tion, USFS, USFWS, Idaho Department of Fish and Game, Idaho Department of Lands, and Utah Department of Agriculture	Interagency Riparian/Wetland Plant Development Project	Select and develop per- formance tested riparian/wetland spe- cies ecotypes and release for commercial production; determine economical commercial production techniques; transfer technology of constructed and created wetlands and riparian/wetland restoration for the Intermountain and Great Basin areas	USDA SCS and coop- erating agencies	FY91	FY2000

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SITE	PRINCIPAL INVESTIGATOR TYPE	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE	
NC, SC	C,E	Marilyn A. Buford Southeastern Forest Experiment Station 2730 Savannah Highway Charleston, SC 29407 803/724-4271	William J. Hammond, Westvaco Corp., Summerville, SC  Joe Hughes, Meyerhauser Co., New Bern, NC	Nitrogen Fertilization of Atlantic White Cedar	Determine whether Atlantic white cedar is responsive to nitrogen fertilization on a moderately well-drained site on the lower coastal plain.	USFS, Westvaco Corp., Meyerhauser Co.	12/90	9/94 Interim analysis
SC	E	Marilyn A. Buford Southeastern Forest Experiment Station 2730 Savannah Highway Charleston, SC 29407 803/724-4271	Donald D. Hook and William Steele, Clemson University	Stand Dynamics Under Four Methods of Restoring a Bottomland Hardwood Stand	Compare efficacy of silvicultural treatments in restoring the function and value of a damaged bottomland hardwood stand, and evaluate and expand existing stand dynamics model for mixed bottomland sites.	USFS	FY91	9/94 Interim report on treatment differences; final report 2026
SC	C,E	Marilyn A. Buford Southeastern Forest Experiment Station 2730 Savannah Highway Charleston, SC 29407 803/724-4271	Claire G. Williams and Joe Hughes, Meyerhauser Co.; Francis Marion National Forest	Growth and Survival of Atlantic White-Cedar on the Lower Coastal Plain of South Carolina	Determine survival and growth rate characteristics of Atlantic white cedar rooted cuttings on organic soils, and evaluate suitability of cedar for wetland restoration in the lower Coastal Plain	USFS, Meyerhauser Co.	FY91	Sept., 2009 (Interim products will be available)
ID	C,E	Warren Clary Forestry Sciences Laboratory 316 E. Myrtle St. Boise, Idaho 83702 208/334-1457		Riparian-Stream Ecology and Management	Develop an improved understanding of riparian and stream habitats, including associated wetlands, and improved methods of managing them for conservation of resources and production of livestock, wildlife, and fish.	USFS	FY91	FY96

A - Marine    B - Estuarine    C - Riverine    D - Lacustrine    E - Palustrine

SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
SC	E	Donald D. Hook Clemson University Clemson, SC 29631 803/656-3591	William H. McKee, Jr., USFS	Selection for Flooding Tolerance in Loblolly Pine	Select Loblolly pine genotypes that are tol- erant of very poorly drained conditions.	USFS	FY90	4/92
MS, LA	C,E	Harvey E. Kennedy, Jr. Southern Hardwoods Laboratory Box 227 Stoneville, MS 38776 601/586-7218	Mississippi State Univ., USACE WES, Louisiana State Univ., USFWS National Wetlands Research Center	Regeneration and Management of Southern Hardwoods	Provide the practical silvicultural methods and guidelines neces- sary for the regenera- tion and multiple-use management of southern bottomland hardwoods. Includes consideration of threatened and endangered species, green-tree reservoir management, and res- oration technology.	USFS	1937	Var-i- able, depend- ing on study
SC	E	William H. McKee, Jr. Southeastern Forest Experiment Station 2730 Savannah Highway Charleston, SC 29407 803/724-4271	USFS, Francis Marion National Forest	Ecology and Man- agement of For- ested Wetlands in the Southeastern Coastal Plain	Determine if phosphorus can be used to convert very poorly drained low fertility hardwood sites to a mixed pine- hardwood stand without drainage or other site preparation treatments.	USFS	FY91	FY96
SC	C,E	William H. McKee, Jr. Southeastern Forest Experiment Station 2730 Savannah Highway Charleston, SC 29407 803/724-4271	Clemson University, Westinghouse Corp., Savannah River Forest Station	Vegetative Survey--Savannah River Plant	Determine the woody species regenerating on thermally impacted areas as compared to unimpacted areas; results will indicate successional trends and thermal impact on wet- land vegetation.	USFS, DOE	FY90	10/92

A - Marine    B - Estuarine    C - Riverine    D - Lacustrine    E - Palustrine

SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
SC	E	Martha R. McKevlin Southeastern Forest Experiment Station 2730 Savannah Highway Charleston, SC 29407 803/724-4271	Donald D. Hook, Clemson University	Ecology and Management of Forested Wetlands in the Southeastern Coastal Plain	Determination of the effects of light levels on gas exchange properties, growth, and morphological characteristics of 3 bottomland forest species: shumard oak, swamp chestnut oak, and green ash. Information is needed to evaluate site restoration following disturbance.	USFS	FY90	9/92
SC	C,D	Martha R. McKevlin Southeastern Forest Experiment Station 2730 Savannah Highway Charleston, SC 29407 803/724-4271	Donald D. Hook, Clemson University	Ecology and Management of Forested Wetlands in the Southeastern Coastal Plain	Determine differences in physiological responses between bare root green ash and cherry bark oak seedlings, and containerized cherrybark oak under conditions of repeated short-term flooding events throughout the growing season.	USFS	FY90	4/92
MN, MI, WI	D,E	Lewis Ohmann Forestry Sciences Laboratory 1831 Highway 169 East Grand Rapids, MN 55744 218/326-7100		Water Quality Management in Forests of the Western Great Lakes Region	Basic understanding of biogeochemical and hydrologic processes in ecosystems of the region, with some emphasis on peatlands. Determine influence of upland timber harvesting on water yield and quality from a bog-upland complex.	USFS	1965	Various

A - Marine    B - Estuarine    C - Riverine    D - Lacustrine    E - Palustrine

SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE	Project continuing
US	C,D,E	William C. Siegel Southern Forest Experiment Station US Postal Service Bldg. 701 Loyola Ave. New Orleans, LA 70113 504/589-6652	Fred Clibage, USFS Southeastern Station	Evaluation of Legal, Tax, and Economic Influ- ences on Forest Resource Management	Trends in wetland development as influ- enced by economic factors. Analysis of legislative and regula- tory factors affecting forested wetland man- agement. Assessment of changing timber supply in south under current wetland regulations.	USFS	FY88		

A - Marine    B - Estuarine    C - Riverine    D - Lacustrine    E - Palustrine

National Marine Fisheries Service

SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
MS, NC	B	David Colby 919/728-8734  Don Moss 919/728-8746 NOAA NMFS, Beaufort Laboratory	Susan Reese USAF Mobile District Natl Marine Lab. Waterways Experiment Station	Effects of Thin Layer Disposal on Fishery Organisms	Evaluate effects of thin-layer disposal on behavior, growth, and survival of fishery organisms.	USAF Mobile District	FY91	FY96
LA	E	Donald Field 919/728-8764 Gordon Thayer NOAA NMFS, Beaufort Laboratory	State of Louisiana Federal Agencies NMFS Restoration Center	Breaux Bell Planning	Plan for restoration projects in Louisiana.	Breaux Bell Trust Fund		FY92
NC	B	H.S. Fonseca NOAA NMFS, Beaufort Laboratory 919/728-8729	Douglas Clark NES	Data Analysis for NMFS-COE 1985-1988 MOA	Evaluate plant and faunal development date from three marsh creation sites in NC. Report development.	Joint NES NOAA NMFS, Beaufort Laboratory	FY92	FY93
NC, FL	B	H.S. Fonseca NOAA NMFS, Beaufort Laboratory 919/728-8729	Susan Bell, Univ. of South Florida  Dr. Mike Durako, South Florida Research Institute	Accelerating Development of Restored Seagrass Meadows	Assess approaches to accelerating development using fertilizer and organic additions on Lab grown plants. Evaluate faunal use and influence of hydrodynamic parameters.	NOAA Coastal Ocean Program NOAA NMFS, Beaufort Laboratory	FY91	FY93

A - Marine    B - Estuarine    C - Riverine    D - Lecustrine    E - Palustrine

SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
Southeast US	B	Andreas Rager NOAA NMFS SE Regional Office 813/923-3503 Gordon Thayer NOAA NMFS Beaufort Laboratory  Thomas Minello NOAA NMFS Galveston Laboratory	Corps Districts in the NMFS SE Region	NMFS-COE Memorandum of Agreement	Develop list of potential restoration sites in COE Civil Works Projects. Site evaluation for final listings to Headquarters.	NOAA NMFS	FY91	Continuing
TX	B	Thomas Minello NOAA NMFS Galveston Laboratory 409/766-3506	James Webb, Texas A & M Univ.  Thomas Minello NOAA NMFS Galveston Laboratory 409/766-3506	Data Analysis for NMFS-COE 1985-1989 NOAA	Continue analysis of data.	NOAA NMFS Galveston Laboratory	FY92	FY93
TX	B	Gordon Thayer NOAA NMFS Beaufort Laboratory 919/728-3747	Hans Paerl, Univ. of North Carolina, Inst. of Mar. Sci. Steve Broome, Ernie Senechal, Lisa Levin, North Carolina State Univ.	Assessment of Success of Salt Marsh Restoration of Different Ages in Texas	Develop criteria for evaluation and statistical assessment of created marshes of different ages in reference to natural marshes.	NOAA Coastal Ocean Program NOAA NMFS, Galveston Laboratory	FY91	FY93
NC	B			Accelerating Development of Restored Salt Marshes	Investigate the role of sediment organic amendments on plant development, nitrogen-cycling, and faunal development.	NOAA Coastal Ocean Programs NOAA NMFS, Beaufort Laboratory	FY91	FY93

A - Marine    B - Estuarine    C - Riverine    D - Lacustrine    E - Palustrine

U.S. Fish and Wildlife Service

SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
TX, AL	A,B,C, D,E	James Johnston US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297		Natural Resource Inventory and Wetland Change Analyses Within Selected Areas of the United States. Work Unit No. 402.02	Develop digital georeferenced data bases to assess effects of development on wet- land and predict future impacts.	USFWS, USEPA, miscellaneous	FY87	FY93
CA	C,D, E	James Johnston US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297		Agricultural Drain Water and Other Contaminant Problems in the San Joaquin Valley, CA. Work Unit No. 402.03	Develop digital georeferenced data bases to assess effects of development on wet- land and predict future impacts.	USFWS, USEPA, miscellaneous	FY88	FY92
AL	A,B,C, D,E	James Johnston US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297		Fate and Effects of Contaminated Sediments in Estuaries: Mobile Bay. Work Unit No. 404.01	Determine the potential risk to identified fish and wildlife from con- taminated sediments through the utilization of GIS technology and field experiments.	USFWS	FY86	FY93
TX	A,B,C, D,E	James Johnston US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297		Fate and Effects of Contaminated Sediments in Estuaries: Galveston Bay. Work Unit No. 404.02	Determine the potential risk to identified fish and wildlife from con- taminated sediments through the utilization of GIS technology and field experiments.	USFWS	FY86	FY93

A - Marine    B - Estuarine    C - Riverine    D - Lacustrine    E - Palustrine

SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
LA	A,B,C, D,E	Larry Handley US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297	National Wetlands Inventory, USFWS, USAE New Orleans District, USGS Coastal Geology Division, and Louisiana DNR Coastal Management Division	Coastal Louisiana Wetland Recovery-Photography acquisition and Habitat Map Preparation. Work Unit No. 407.01	Provide habitat maps, ecological atlases, and airborne photography and video to assess effects of development on wetlands and to predict future impacts.	USFWS Miscellaneous	FY88	FY92
FL, LA, TX, MS, AL, CA	A,B,C, D,E	Larry Handley US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297	USEPA, Galveston Bay National Estuarine Program, State of Alabama, State of Louisiana	Habitat Mapping, Ecological Atlas Development, and Airborne Video. Work Unit No. 407.02	Provide habitat maps, ecological atlases, and airborne photography and video to assess effects of development on wetlands and to predict future impacts.	USFWS Miscellaneous	FY88	FY93
LA	A,B,C, D,E	Larry Handley US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297		Chandeleur Islands Seagrass Change Analysis. Work Unit No. 407.03	Provide habitat maps, ecological atlases, and airborne photography and video to assess effects of development on wetlands and to predict future impacts.	USFWS Miscellaneous	FY88	F
LA	A,B,C, D,E	James Johnston US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297		Data Base Development and Geographic Analyses. Work Unit No. 408.01	Develop digital spatial data bases; Integrate existing GIS data bases; archive and maintain all records; and provide analyses for wetland loss and habitat change.	USFWS	FY88	FY93

A - Marine    B - Estuarine    C - Riverine    D - Lacustrine    E - Palustrine

U.S. Fish and Wildlife Service

SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
AL, CA, FL, LA, MS, TX	A,B,C, D,E	Elijah Ramsey US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297		Multiple Temporal and Spatial Remote Sensing Data as Inputs into a Land Cover Resource Geo- graphical Infor- mation System. Work Unit No. 409.01	Develop remote sensing technologies utilizing satellite aircraft, helicopter platforms, and ground-based measurements to differ- entiate and inventory wetland types, charac- terize wetland status, and monitor wetland trends.	USFWS, Corps of Engi- neers, Miscellaneous	FY88	FY93
AL, CA, FL, LA, MS, TX	A,B,C, D,E	Elijah Ramsey US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297		Monitoring and Measuring Wetland Extent and Commu- nity Structure: A Synergistic Approach Using Various Remote Sensing Platforms and Ground-Based Measurements. Work Unit No. 409.02	Develop remote sensing technologies utilizing satellite aircraft, helicopter platforms, and ground-based measurements to differ- entiate and inventory wetland types, charac- terize wetland status, and monitor wetland trends.	USFWS, Corps of Engi- neers, Miscellaneous	FY88	FY93
MS, LA	A,B,C, D,E	James Johnston US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297		An Evaluation of the Potential Impacts of Intro- duced Materials in Mississippi River and Atchaf- alaya River Water on Surrounding Wetland Plant and Animal Communi- ties. Work Unit No. 411.01	Examine the impacts of contaminants and their physio-chemical process on wetlands plants and their associated fish and wildlife popula- tions.	USFWS	FY89	FY93

A - Marine    B - Estuarine    C - Riverine    D - Lenticarine    E - Pelagic

SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
LA	A,B,C, D,E	James Johnston US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297		An Evaluation of Contaminants and Their Role in Wetland Losses and Function Val- ues. Work Unit No. 411.03	Examine the impacts of contaminants and their physio-chemical process on wetlands plants and their associated fish and wildlife popula- tions.	USFWS	FY92	To be deter- mined
FL, GA, LA, TX	A,B,C, D,E	Elijah Ramsey US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297		Measuring and Monitoring the Wetland Response to Changes in Coastal Hydrology and Water Quality as a Function of Sea Level Rise. Work Unit No. 412	Determine the response of coastal wetland species zonation to changes in hydrology and water quality as a result of global cli- mate changes and sea level rise.	USFWS USEPA	October 1990	Septem- ber 1995
Coastal Gulf of Mexico	A,B	Larry Handley US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297	USEPA Environmental Monitoring and Assessment Program (EMAP), State of Florida	Submerged Aquatic Vegetation Mapping for the Coastal Gulf of Mexico. Work Unit No. 414	Develop a digital data base on submerged aquatic vegetation (SAV) and assess status and condition of SAV beds in the Gulf of Mexico.	USFWS USEPA	October 1991	October 1996
LA	A,B,C, D,E	Bruce Puigseck US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297			Nonexperimental Statistical Meth- ods for Wetland Research. Work Unit No. 415.01	USFWS	FY92	FY93

A - Marine    B - Estuarine    C - Riverine    D - Lacustrine    E - Palustrine

U.S. Fish and Wildlife Service

SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
WR	D	Bruce Pugesek US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/546-7297		Life History and Population Studies of California Gulls Nesting at Bamforth Lake, Albany County, WY. Work Unit No. 415-02	Provide research in the areas of statistics and quantitative ecology.	USFWS	FY91	FY96
American Southwest Desert; Atlantic Coastal Dunes and Swales, Buzzards Bay, Massachusetts; Atlantic Coast Marine Forests; Southeast Pitcher Bogs; Humboldt Bay, California; New England Forested Wetlands; Pacific Northwest Intertidal Wetlands; Puget Sound, Washington	A,B,C, D,E	Virginia Van Sickle US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/546-7297	Contracted authors (usually numerous university scientists)	Management and Production of the Community and Estuarine Profile Series. Work Unit No. 503	Synthesize published and unpublished scientific data on the ecology of selected biological communities and estuaries of the United States.	USFWS	FY81	FY92

A - Marine    B - Estuarine    C - Riverine    D - Lacustrine    E - Palustrine

SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE	
TX	B,E	James Allen, Thomas Doyle, Hilary Neckles, and Christopher Onuf US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard 504/646-7297		Seagrass Studies in Laguna Madre, Texas. Work Unit No. 504.07	Develop predictive models to predict habitat changes in coastal (estuarine and palustrine) wetlands.	USFWS, Corps of Engineers, Miscellaneous	FY87	FY92	
LA	A,B	Hilary Neckles US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard 504/646-7297		Seagrass Studies in Chandeleur Sound. Work Unit No. 504.08	Provide information on physical disturbance and seagrass relations for predictive models of habitat changes in coastal (estuarine) wetlands.	USFWS, Corps of Engineers, Miscellaneous	FY88	FY92	
LA	B,E	Thomas Doyle US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297		Barteria Basin Spatial Simulation Modelling. Work Unit No. 504.09	Develop predictive models to predict habitat changes in coastal (estuarine and palustrine) wetlands.	USFWS, Corps of Engineers, Miscellaneous	FY88	FY92	
LA	B,E	Thomas Doyle US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297			Spatial Simulation Modelling of Jean Lafitte National Park: Barataria Unit and Fina Laterre. Work Unit No. 504.10	Develop predictive models to predict habitat changes in coastal (estuarine and palustrine) wetlands.	USFWS, Corps of Engineers, Miscellaneous	FY91	FY93

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U.S. Fish and Wildlife Service

SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
Southeast US		James Allen US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297		Bottomland Hardwood Restoration Publications. Work Unit No. 505.01	Develop information on bottomland hardwood restoration and moist-soil impoundment creation methodologies.	USFWS	FY87	FY92
LA, MS		James Allen US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297		Publications on Construction and Management of Hoist-Soil Impoundments. Work Unit No. 505.04	Develop information on bottomland hardwood restoration and moist-soil impoundment creation methodologies.	USFWS	FY89	FY92
LA	B,D, E	Rebecca Howard US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297	Louisiana State University	Response of Herbaceous Freshwater Marsh Species to Increased Salinity and Water Level. Work Unit No. 506.02	Quantify the effects of increased salinity and water depth on growth and survival of several species of common freshwater marsh plants in field and greenhouse conditions.	USFWS, State of Louisiana	FY89	FY93
LA	B,D, E	Janet Keough and James Grace US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard 504/646-7297	Louisiana State University	Effect of Water-logging and Salinity on Competitive Ability in Coastal Marsh Plant Species. Work Unit No. 506.03	Examine the effects of salinity and water-logging, including aspects of frequency and amplitude of salinity variation, on individual plant growth and competitive ability.	USFWS, State of Louisiana	FY89	FY93

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SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
LA	B	Lee Foote US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297	LUMCON, Louisiana State University, University of South-Western Louisiana, USGS	An Ecological Analysis of Marsh Management in Coastal Louisiana: Processes Related to the Fertility of Marsh Ecosystems. Work Unit No. 507.01	Determine the effectiveness of wetland management practices to restore deteriorating wetlands and maintain existing wetlands in the Louisiana coastal zone.	USFWS	FY89	FY93
LA	B, E	Lee Foote US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297	LUMCON, Louisiana State University, University of South-Western Louisiana, USGS	Effects of Marsh Impoundment and Management on the Plant Growing Environment of Louisiana's Deltaic Wetlands Work Unit No. 507.02/03	Determine the effectiveness of wetland management practices to restore deteriorating wetlands and maintain existing wetlands in the Louisiana coastal zone.	USFWS	FY90	FY95
Southeastern US	B	Donald Cahoon US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297		Interactions Between Sea Level Rise and Vertical Accretion of Marshes in the Southeastern United States. Work Unit No. 508.01	Determine the role of wetland plant communities in balancing sediment accretion with apparent sea level rise across a gradient of wetland stability.	USFWS	FY91	FY95
NC	B	Donald Cahoon US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297	Duke University	The Impact of Sea Level Rise on the Coastal Wetlands in Albemarle and Pamlico Sounds, North Carolina: A Study of Wetland Dynamics. Work Unit No. 508.02	Determine the role of wetland plant communities in balancing sediment accretion with apparent sea level rise across a gradient of wetland stability.	USFWS	FY91	FY94

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U.S. Fish and Wildlife Service

SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
FL, LA, NC, SC, TX	A,B,C, D,E	Hillary Neckles US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297	University of New Hampshire	Review of Poten- tial Effects of Global Climate Change on Sub- merged Aquatic Vegetation in Coastal Habitat. Work Unit No. 509.01	Provide information of potential effects of global climate change on production and com- munity structure in submersed aquatic vege- tation.	USFWS	FY91	FY92
FL, LA, NC, SC, TX	B	Hillary Neckles US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297		Response of Sub- merged Macrophyte Communities to Salinity Stress. Work Unit No. 509.02	Determine the effects of salinity increases associated with sea- level rise on produc- tion and community com- position of submerged macrophytes.	USFWS	FY91	FY94
FL, LA, NC, SC, TX	A,B	Hillary Neckles US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297	Virginia Institute of Marine Science	Ecosystem Model- ing and Simula- tion Analysis of Subtropical and Tropical Seagrass Systems: Response to Selected Global Climate Change Variable. Work Unit No. 509.03	Predict effects of glo- bal climate change var- iables on production and community structure of subtropical and tropical seagrasses.	USFWS	FY91	FY93
Southeastern US Coastal Zone	B,C	James Allen US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297		Synthesis of Existing Informa- tion on Effects of Global Change on Cypress-Tupelo and Mangrove Wetlands. Work Unit No. 510.01	Determine the effects of global climate change on structure, function, extent, and distribution of cypress-tupelo and man- grove wetlands of the Gulf of Mexico coastal zone.	USFWS	FY91	FY93

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SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
LA	C	James Allen US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297		Effects of Salt Water Intrusion on Cypress-Tupelo Wetlands of Southern Louisiana. Work Unit No. 510.02	Determine the effects of global climate change on structure, function, extent, and distribution of cypress-tupelo wetlands of the Gulf of Mexico coastal zone.	USFWS	FY91	FY95
SC	C	James Allen US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297	Baruch Forest Science Institute, Clemson University	Response to Forested Wetland Seedlings to Flooding and Increased Salinity. Work Unit No. 510.03	Determine the effects of global climate change on structure, function, extent, and distribution of cypress-tupelo and mangrove wetlands of the Gulf of Mexico coastal zone.	USFWS	FY91	FY94
LA	C	James Allen US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297	Louisiana State University	Evaluation of Herbivory in Baldcypress and Its Relationship to Flooding as Influenced by Global Change. Work Unit No. 510.04	Determine the effects of global climate change on structure, function, extent, and distribution of cypress-tupelo and mangrove wetlands of the Gulf of Mexico coastal zone.	USFWS	FY91	FY93
Any coastal area	A,B	Thomas Doyle US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297		Review and Synthesis of Dynamic Simulation Models for Predicting Global Climate Change Effects on Coastal Wetlands. Work Unit No. 511.01	Evaluate the cumulative effects of natural and anthropogenic impacts, including predicted global climate change on habitat function diversity for regional assessments.	USFWS	FY91	FY92

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SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
FL, LA	A,B	Thomas Doyle US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297		Modeling and Detecting the Effects of Fire and Hurricane Disturbance on Coastal Wetland Systems: Solving Problems of Ecological Scale and Hierarchy. Work Unit No. 511.02	Evaluate the cumulative effects of natural and anthropogenic impacts, including predicted global climate change on habitat function and diversity for regional assessments.	USFWS	FY91	FY94
FL	A,B	Thomas Doyle US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297	Louisiana State University	Evaluation of Effects of Large-Scale Disturbances on Gulf Coastal Wetlands. Work Unit No. 511.03	Evaluate the cumulative effects of natural and anthropogenic impacts, including predicted global climate change on habitat function and diversity for regional assessments.	USFWS	FY91	FY94
LA		William Nohman US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297		Movements, Time-Activity Budgets, Habitat Use, and Survival of Female Canvasback Ducks Wintering in Louisiana. Work Unit No. 601.03	Determine and quantify sources of nonhunting mortality and size of population; population sex structure; feeding ecology and body composition changes; movements, time activity budgets, and habitat use.	USFWS	FY87	FY94
Mississippi Alluvial Valley		Carroll Cordes US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297		Estimation of Visibility Bias for Experimental Aerial Surveys of Mallards Wintering in the Mississippi Alluvial Valley. Work Unit No. 602.02	Determine total numbers and proportion of mallards wintering in the Mississippi Alluvial Valley and determine visibility bias corrections for estimates of mallard population densities.	USFWS	FY88	FY93

A - Marine   B - Estuary   C - Riverine   D - Lacustrine   E - Palustrine

SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
TX	B	Marc Woodin US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297		Foraging Ecology of Redheads Wintering in South Texas. Work Unit No. 603.01	Determine contaminant levels, population sizes, sex ratios, distribution, feeding ecology, body composition changes, and habitat use of diving ducks; and determine factors limiting diving duck food resources.	USFWS	FY87	FY93
TX	B,E	Marc Woodin US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297		Condition and Time-Activity Budgets of Redheads Wintering in South Texas. Work Unit No. 603.02	Determine contaminant levels, population sizes, sex ratios, distribution, feeding ecology, body composition changes, and habitat use of diving ducks; and determine factors limiting diving duck food resources.	USFWS	FY87	FY92
TX	B	Marc Woodin US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297	University of Texas Marine Science Institute	Role of Nutrients of Distribution and Ecology of Seagrasses in the Laguna Madre. Work Unit No. 603.03	Determine contaminant levels, population sizes, sex ratios, distribution, feeding ecology, body composition changes, and habitat use of diving ducks; and determine factors limiting diving duck food resources.	USFWS	FY87	FY93
Texas and the western Gulf of Mexico region	B,E	Marc Woodin US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297	University of Texas Marine Science Institute	Interrelationships of Redhead Habitats, Nutrients, and Chemical Isotopes. Work unit No. 603.05	Determine contaminant levels, population sizes, sex ratios, distribution, feeding ecology, body composition changes, and habitat use of diving ducks; and determine factors limiting diving duck food resources.	USFWS	FY90	FY93

A - Marine    B - Estuarine    C - Riverine    D - Lacustrine    E - Palustrine

U.S. Fish and Wildlife Service

SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
TX	E	Marc Woodin US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297		Impact of Wintering Redhead Duck Use on Water Quality of a South Texas Urban Pond. Work Unit No. 603.06	Determine contaminant levels, population sizes, sex ratios, distribution, feeding ecology, body composition changes, and habitat use of diving ducks; and determine factors limiting diving duck food resources.	USFWS	FY91	FY93
Laguna Madre De Tamaulipas	B,E	Marc Woodin US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297	Autonomous University of Tamaulipas	Winter Ecology of Redheads ( <i>Arthya americana</i> ) in the Laguna Madre de Tamaulipas. Work Unit No. 603.07	Determine contaminant levels, population sizes, sex ratios, distribution, feeding ecology, body composition changes, and habitat use of diving ducks; and determine factors limiting diving duck food resources.	USFWS	FY92	FY94
LA		Thomas Michot US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297		Contaminant Body Burdens and Parasite Loads of Wintering Redheads Near the Chandelour Islands, Louisiana. Work Unit No. 604.02	Determine contaminant levels, population sizes, sex ratios, distribution, feeding ecology, body composition changes, and habitat use of diving ducks; determine blood levels of hormones and monoamines.	USFWS	FY87	FY92
FL		Thomas Michot US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297		Contaminant Body Burdens of Wintering Redheads ( <i>Arthya americana</i> ) in Apalachee Bay, Florida. Work Unit No. 604.04	Determine contaminant levels, population sizes, sex ratios, distribution, feeding ecology, body composition changes, and habitat use of diving ducks; determine blood levels of hormones and monoamines.	USFWS	FY91	FY94

A - Marine    B - Estuarine    C - Riverine    D - Lacustrine    E - Palustrine

SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
MS, AR	E	Dan Treadt US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297		HSI Model Validation and Revision: Mallard. Work Unit No. 605.02	Design and initiate HSI model evaluation studies and complete HSI model revisions.	USFWS	FY88	FY92
		Carroll Cordes US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297		HSI Model Validation and Revision: Pintail. Work Unit No. 605.03	Revise and update HSI model for the pintail.	USFWS	FY89	FY92
N/A		Carroll Cordes US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297		Improvement of HSI Models for Forester's Tern, White Ibis, and Laughing Gull. Work Unit No. 605.04	Design and initiate HSI model evaluation studies and complete three HSI model revisions.	USFWS	FY91	FY93
LA	B,D, E	Clint Jeske US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297		Seasonal Distribution and Movement of Pintails ( <i>Anas acuta</i> ) in Louisiana. Work Unit No. 608.01	Determine distribution and movement patterns; habitat use and requirements; winter survival; and relationships between nutritional regimes and reproductive performance in the winter area.	USFWS	FY91	FY95

A - Marine    B - Estuarine    C - Riverine    D - Lacustrine    E - Palustrine

SITE	PRINCIPAL INVESTIGATOR	TYPE	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
LA	D,E	Clint Jeske US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297	Louisiana Cooperative Fish and Wildlife Unit	Nocturnal Movements, Habitat Use, and Survival of Female Northern Pintails in Southwestern Louisiana. Work Unit No. 608.02	Determine distribution and movement patterns; habitat use and requirements; winter survival; and relationships between nutritional regimes and reproductive performance in the winter area.	USFWS	FY91	FY95
		Clint Jeske US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297		Annotated Bibliography of Northern Pintail Biology. Work Unit No. 608.03	Develop a bibliography data base for northern pintails.	USFWS	FY91	FY92
Gulf of Mexico	B,C, D,E	Clint Jeske US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297	Alaska Fish and Wildlife Research Center	Identification of Subpopulations of Northern Pintails in the Gulf of Mexico Region. Work Unit No. 608.04	Identify biomarkers that may be used to identify wintering areas of breeding pintails.	USFWS	FY92	FY95
Northern Coast of the Gulf of Mexico		Carroll Cordes US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297		Use of Stopover Habitats along the Northern Coast of the Gulf of Mexico by Neotropical Landbird Migrants. Work Unit No. 610.01	Determine the qualitative and quantitative aspects of migrant stopover habitats remaining in coastal Louisiana, Mississippi, and Alabama, and the rates and causes of habitat loss.	USFWS	FY91	FY94

A - Marine    B - Estuarine    C - Riverine    D - Lacustrine    E - Palustrine

SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
LA, MS, AL		Carroll Cordes US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297		Analysis of Trends in Availability of Stopover Habitats to Neotropical Landbird Migrants. Work Unit No. 610.02	Determine the qualitative and quantitative aspects of migrant stopover habitats remaining in coastal Louisiana, Mississippi, and Alabama, and the rates and causes of habitat loss.	USFWS	FY91	FY94
Northern Gulf of Mexico coast		Carroll Cordes U.S. Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297		Energy Relationships Between Neotropical Landbird Migrants and Different Stopover Habitats along the Northern Gulf of Mexico Coast. Work Unit No. 610.03	Determine the qualitative and quantitative aspects of migrant stopover habitats remaining in coastal Louisiana, Mississippi, and Alabama, and the rates and causes of habitat loss.	USFWS	FY92	FY95
Mississippi Alluvial Valley	E	Don Treadt US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297	Louisiana Technical University	Mallard Use and Food Availability on Flooded Croplands and their use by mallards and other water-dependent birds. Work Unit No. 611.01	Determine the food availability on flooded croplands and quantify their use by mallards and other water-dependent birds.	USFWS	FY91	FY96
Mississippi Alluvial Valley	E	Don Treadt US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297		Quantifying the Abundance and Distribution of Mallard Habitat Within the Mississippi Alluvial Valley. Work Unit No. 611.02	Determine the distribution and abundance of wetland habitats in the Mississippi Alluvial Valley and relate their distribution to the abundance of mallards.	USFWS	FY92	FY96

A - Marine    B - Estuarine    C - Riverine    D - Lenticarine    E - Palustrine

U.S. Fish and Wildlife Service

SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
AR, MS		Dan Treadt US Fish and Wildlife Service National Wetlands Research Center 1010 Gause Boulevard Slidell, LA 70458 504/646-7297	Pine Bluff Cooperative Fisheries Research Project	Sampling, Identification, and Processing of Seed and Invertebrates from Temporary Wetlands.	Quantify the food abundance on temporary wetlands over time.	USFWS	FY91	FY94

A - Marine    B - Estuarine    C - Riverine    D - Lacustrine    E - Palustrine

SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
OR	D	James J. Sartoris US Bureau of Reclamation PO Box 25007, D-3742 Denver, CO 80225-0007 303/236-6004 (Fax: 303/236-7006)	Upper Klamath Lake; Klamath Tribe; USGS; USFWS; Klamath Project Office, USBR	Wetland Ecology and Utilization	Develop USBR's capability to restore, construct, and manage wetlands so as to integrate habitat enhancement with water quality and hydrologic functional utilization.	Water Technology and Environmental Research (Water) Program, USBR, Denver Office	FY90	FY95
CA	E	James J. Sartoris US Bureau of Reclamation PO Box 25007, D-3742 Denver, CO 80225-0007 303/236-6004 (Fax: 303/236-7006)	Eastern Municipal Water District; California Dept. of Fish and Game; USFWS; Lower Colorado River Region, USBR	Wetland Ecology and Utilization	Develop USBR's capability to restore, construct, and manage wetlands so as to integrate habitat enhancement with water quality and hydrologic functional utilization.	Water Technology and Environmental Research (Water) Program, USBR, Denver Office	FY90	FY95
ID	C	James J. Sartoris US Bureau of Reclamation PO Box 25007, D-3742 Denver, CO 80225-0007 303/236-6004 (Fax: 303/236-7006)	American Falls Reservoir: Minidoka Project, USBR	Wetland Ecology and Utilization	Develop USBR's capability to restore, construct, and manage wetlands so as to integrate habitat enhancement with water quality and hydrologic functional utilization.	Water Technology and Environmental Research (Water) Program, USBR, Denver Office	FY90	FY95
ND	C	James J. Sartoris US Bureau of Reclamation PO Box 25007, D-3742 Denver, CO 80225-0007 303/236-6004 (Fax: 303/236-7006)	Heart Butte Reservoir: Missouri Souris Projects Office, USBR	Wetland Ecology and Utilization	Develop USBR's capability to restore, construct, and manage wetlands so as to integrate habitat enhancement with water quality and hydrologic functional utilization.	Water Technology and Environmental Research (Water) Program, USBR, Denver Office	FY90	FY95

A - Marine    B - Estuarine    C - Riverine    D - Lacustrine    E - Palustrine

SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
AR	E	Gerard J. Gonthier 2301 Federal Office Building Little Rock, AR 72201	USAE WES, Vicksburg, MS	Wetland Research Project, Black Swamp, Cache River, Woodruff County, Arkansas	Define surfacewater budget of the Black Swamp wetland; Define sediment budget of the wetland; Evaluate the groundwater flow system of the wetland; Assist in collection of water-quality data; Assist in interpretation re total functions of the wetlands.	USGS USAE WES, Vicksburg, MS	FY87	FY92
CO	C,E	Briant A. Kimball		Mechanisms of Stream Recovery from Metal Contamination	Water from abandoned mine tailings contributes large amounts of cadmium, copper, iron, lead, manganese, nickel, and zinc to the Arkansas River. This project seeks to characterize the within-stream chemical processes that control the transport and distribution of these elements in streams in the Leadville area, including behavior of the metals in wetlands.	USGS Toxics Program	FY88	FY93

A - Marine    B - Estuarine    C - Riverine    D - Lacustrine    E - Palustrine

SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
CO	E	Robert F. Middleburg Mail Stop 423 Denver Federal Center Lakewood, CO 80225	US Army, Rocky Mountain Arsenal, CO (USFWS and Colorado State University also involved, although not directly with USGS)	Surface-Water and Ground-Water Monitoring and Evaluation, Rocky Mountain Arsenal	Provide guidance and review of ground water investigations designed to estimate the effect of offsite activities and on-site remedial actions on ground water flow, ground water quality, contaminant migration and the relation between ground and surface water. Specifically, monitor the wetlands that were created (by USFWS and Army) and evaluate their impact on ground water.	USGS US Army	FY91	Continuing
US: especially NH, MD, ME, MN	D,E	Thomas C. Winter Mail Stop 413 Denver Federal Center Lakewood, CO 80225	USFWS, DC Headquarters USFWS, Denver, CO USDOT, FHWA Cornell University	The Role of Lakes in the Hydrologic System With Emphasis on their Relation to Ground Water	Gain an understanding of the basic principles controlling interaction of lakes, wetlands, and ground water, including associated chemical fluxes. Project also deeply involved in climate research, especially with respect to evaporation from small water bodies and wetlands.	USGS from: 1978-81 USFWS, DC Headquarters; 1979-81 USFWS, Denver CO;	FY73 1984-90T, FHWA 1979-81 Cornell Univ	Continuing
US: especially MD, NE MN	C,D,E	James V. LaBaugh Mail Stop 413 Denver Federal Center Lakewood, CO 80225		The Role of Chemical Fluxes in the Biogeochemistry of Inland Surface Waters, Including Lakes, Reservoirs, and Wetlands	Understand the mechanisms controlling fluxes of biologically important chemical elements between surface waters, including lakes, reservoirs, and wetlands, and their watersheds.	USGS	FY85	Continuing

A - Marine    B - Estuarine    C - Riverine    D - Lenticarine    E - Palustrine

SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
FL	E	Paul S. Hampson 224 W. Center Street, Suite 1006 Altamonte Springs, FL 32714	Reedy Creek Improvement District	Assessment of Water-Quality Processes Affecting Nutrients in Wetlands Stream	Define hydrologic environment of the Reedy Creek wetlands system in terms of water storage capacity, mean depth, stage duration, and water residence time. Evaluate role of wetlands in nutrient cycling and DO variation. Measure nutrient retention capacity of Reedy Creek Improvement District wetlands and effect of the wetlands on downstream water quality	USGS Reedy Creek Improvement District, FL	FY86	FY91 except report FY92 final report
FL	E	William R. Bidlake 4710 Eisenhower Blvd. Suite B-5 Tampa, FL 33634	Southwest Florida Water Management District Sarasota County West Coast (FL) Regional Water Supply Authority	Evapotranspiration from Areas of Native Vegetation in Central Florida	Develop accurate estimates of evapotranspiration (ET) from palmetto prairie, pine flat woods, grass ponds, and cypress heads in the Ringling MacArthur Reserve (CRM), and the Cypress Creek and Big Cypress Swamp area. Estimate total ET from RWA. Analyze for error in the estimated ET.	USGS from: 1987-90 Southwest Florida Water Management District	FY87	FY91 except report FY92 final report
FL	E	Edward R. German 224 W. Central St. Suite 1006 Altamonte Springs, FL 32714	Volusia County, FL St. Johns River Water Management District	A Direct Methodology for Predicting Wetland Responses to Hydrologic Stresses	Develop a direct, simple methodology for estimating the effects or impacts of development on wetland hydrology when given measurable, physical parameters and variables.	USGS Volusia County, FL St. Johns River Water Management District	FY91	FY94

A - Marine    B - Estuarine    C - Riverine    D - Lacustrine    E - Palustrine

SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
MA	C,E	US Geological Survey 28 Lord Road Suite 280 Marlborough, MA 01752	Massachusetts Water Resources Comm., Water Pollution Control	Predicting Wetland Influences on Stream-Water Quality	Identify and define the relations among stream-water quality and physical, hydrological, and climatological characteristics of wetlands. Develop equations for predicting dissolved oxygen and nutrient levels from easily-measured physical and hydrological characteristics of Massachusetts wetlands.	USGS from: 1988-90 Massachusetts Water Resources Comm., Water Pollution Control	FY88	FY91 except final report
ME	E	William J. Nichols 26 Ganneston Drive Augusta, ME 04330	Maine Bureau of Geology, Dept. of Conservation	Hydrology of Peat Bogs in Maine	Determine the hydrology of two peat bog systems which may be applied to a quantitative flow analysis. Investigate accumulation of trace metals and nutrients in the undisturbed bog system. Estimate trace metal and nutrient distribution based on peat removal.	USGS Maine Bureau of Geology, Dept. of Conservation	FY80	FY91 except final report
MI	D,E	Stephen J. Rheume 6520 Mercantile Way Suite 5 Lansing, MI 48911	Keweenaw Bay Indian Community	Water Resources of Keweenaw Bay, Michigan	Describe hydrology of the Assinins Wetland area in the southwest corner of Keweenaw Bay. Determine current water-quality conditions of the near shore area of Keweenaw Bay, its tributaries, and adjacent ground water.	USGS Keweenaw Bay Indian Community	FY91	FY92

A - Marine    B - Estuarine    C - Riverine    D - Lacustrine    E - Palustrine

SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
NC	E	Maurice W. Treece, Jr. 3916 Sunset Road Raleigh, NC 27607	North Carolina Department of Natural Resources and Community Development	Estuarine Water Quality and the Management of Artificial Drainage from Wetlands	Study the impact of artificial drainage of wetlands on the Albemarle-Pamlico Peninsula which has one of the largest continuous areas of wetlands in the Nation. To address: (1) downstream impacts of artificial drainage management, and (2) the effects of intermittent freshwater drainage on nursery area salinity.	USGS North Carolina Department of Nat ural Resources and Community Develop ment	FY88	FY92
NJ	E	Kenneth S. Turner Mountain View Office Park 810 Bear Tavern Road Suite 206 West Trenton, NJ 08628	USFWS, Boston, MA	An Assessment of Impacts of Rolling Knoll Landfill on Nearby Water Resources	Define the general geo hydrology of the Great Swamp around the land fill and monitor the quality of ground water and (or) surface water around the landfill.	USFWS USGS	FY89	FY91 except report
NJ	E	Robert E. Wickens Mountain View Office Park 810 Bear Tavern Road Suite 206 West Trenton, NJ 08628	Department of Environmental Protection, NJ	Use of 1-Dimen sional Models to Simulate Flow and Salinity in Estu aries With Extensive Wetlands. Southern New Jersey	Test how well several models simulate flow and the transport of salinity in estuaries (Great Egg Harbor and Tuckahoe Rivers) that contain well-developed, well-mixed channels and extensive wetlands. Identify problems in model application and suggest improvements.	USGS Department of Environmental Protection, NJ	FY91	FY93

A - Marine    B - Estuarine    C - Riverine    D - Lacustrine    E - Pelagic

SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
US, especially MD, VA, WI, MN	C,D,E	Virginia Carter Mail Stop 430 12201 Sunrise Valley Drive Reston, VA 22092	USNPS, National Capital Parks; NASA Pioneer-Venus	Remote Sensing and Ecological Research in Wetlands	Determine factors responsible for changing distribution of submersed macrophytes beds in tidal Potomac River.	USGS 1987 USNPS, National Capital Parks	FY72	Continuing

A - Marine    B - Estuarine    C - Riverine    D - Lacustrine    E - Palustrine

SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE	Continuing
US, especially TN, NC, VA, MD, CO, MN, SC, RI, LA	C,E	Cliff R. Hupp 12201 Sunrise Valley Drive Reston, VA 22092		Vegetation and Hydrogeomorphic Relations	Conduct basic research in the analysis and interpretation of the role of vegetation in natural and disturbed fluvial systems, including riparian and wetlands systems.	USGS	FY89		
					Conduct basic research in the hydrogeomorphic- plant ecological aspects of watershed dynamics, including the 				

A - Marine    B - Estuarine    C - Riverine    D - Lacustrine    E - Palustrine

SITE	PRINCIPAL INVESTIGATOR	TYPE	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
NY	William F. Coon 521 West Seneca Street Ithaca, NY 14850		Monroe County Environmental Health Laboratory, NY	Effects of Stormwater Detention in Wetlands of the Lower Irondequoit Creek Basin near Rochester, New York	<p>Evaluate the use of the floodplain wetlands at the mouth of Irondequoit Creek as a nutrient and sediment filter.</p> <p>Determine the effects of dispersing stormwater runoff on a monocultural cattail wetland following flow modification. These modifications will disperse stormflows throughout the wetlands and increase residence time of the flood waters and associated constituents.</p> <p>Document the present flora and fauna structure of the wetland.</p> <p>Evaluate ecosystem changes that might improve the multiple-use value of the wetland resource.</p>	USGS Monroe County Environmental Health Laboratory, NY	FY90	FY94

A - Marine    B - Estuarine    C - Riverine    D - Lacustrine    E - Palustrine

SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
OR	C	Frank A. Rinella 10615 SE Cherry Blossom Drive Portland, OR 97216		Amazon Creek Water Quality Assessment	Analyze streambed sediment and water samples from Amazon Creek and adjacent wetlands for inorganic trace elements and organic compounds on EPA's priority pollutant list.  Evaluate temporal and spatial water-quality conditions.	USGS	FY91	FY93
VA	E	Gary K. Speiran 3600 West Broad St. Rm. 606 Richmond, VA 23230	Virginia Polytech Institute State University of Virginia Accomack-Northampton Planning Comm.	Biogeochemical Processes Controlling Nitrate Concentrations in Ground-Water Discharge	Determine the effects of ground-water flow and biogeochemical processes on nitrate concentrations in ground water that discharges into coastal estuaries, saltwater marshes, and wetlands.	USGS Virginia Polytech Institute State University of Virginia Accomack-Northampton Planning Comm.	FY91	FY94

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SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
WI	E	William J. Rose 6417 Normandy Lane Madison, WI 53719	Wisconsin DNR	Effects of Acid Deposition on Acidic Lakes in Northern Wisconsin	Determine hydrologic and chemical budgets for two extremely sensitive (alkalinity < 20 meq/L) lakes in northern Wisconsin.  Determine controls on lake chemistry, especially as affected by ground water inflow; document differences between lakes surrounded by bog and those without bog influence.	USGS Wisconsin DNR	FY87	FY96
WI	E	David P. Krabbenhoft 6417 Normandy Lane Madison, WI 53719	Wisconsin DOT, Division of Highways	Hydrogeological Assessment and Guidelines Development for Wetland Restoration and Creation Projects	Assess the current state of knowledge concerning wetland hydrology and hydrogeology, particularly as it pertains to restoration and creation projects.  Conduct research on the hydrology and restoration and creation projects before, during, and after.  Develop technical guidelines for the development of future wetland restoration and creation projects.	USGS Wisconsin DOT	FY90	FY96

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SITE	TYPE	PRINCIPAL INVESTIGATOR	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
WV	E	Marcus C. Waldron 603 Morris Street Charleston, WV 25301	West Virginia DNR, Water Resources Division	Assimilative Capacity of a High Altitude Wetland, Canaan Valley, West Virginia	Determine the impact of waste-water discharges on the surface-water resources of the Canaan Valley.  Determine and quantity the factors that con- trol the capacity of the wetlands and sur- face waters of Canaan Valley to assimilate wastewater on a year- round basis.	USGS West Virginia DNR	FY91	FY93
WV	E	Marcus C. Waldron 603 Morris Street Charleston, WV 25301	Lane Council of Government	Microenviron- mental Determinants of Deni- trification in Wetlands	Develop methods for measuring in situ deni- trification in wetland soils and sediments. Identify key environ- mental factors that regulate denitrifica- tion in a specific wet- land located in north- ern West Virginia.	USGS Lane Council of Government	FY91	FY93
LA	E	Jeff Williams US Geological Survey 914 National Center Reston, VA 22092	Louisiana State University	Research, Wetlands Loss Processes	Determine the geologic conditions and pro- cesses responsible for wetlands loss and deterioration.	USGS	FY89	FY93
FL	E	Rich Stumpf US Geological Survey 600 Fourth St. South St. Petersburg, FL 33701	USFNS	Research, Wetlands Loss Processes	Determine the geologic conditions and pro- cesses responsible for wetlands loss and deterioration.	USGS	FY91	FY95

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SITE	PRINCIPAL INVESTIGATOR	TYPE	COOPERATORS	TITLE OF WORK	OBJECTIVES	FUNDING SOURCE	PROJECT START DATE	PROJECT ENDING DATE
MI	Jeff Williams	E	US Geological Survey 914 National Center Reston, VA 22092	Indiana Geological Survey USFWS	Research, Wetlands Loss Processes	Determine the geologic conditions and pro- cesses responsible for wetlands loss and deterioration.	USGS	FY91
OH	Morrice Robbins	E	US Geological Survey 914 National Center Reston, VA 22092	Ohio Geological Survey	Research, Wetlands Loss Processes	Determine the geologic conditions and pro- cesses responsible for wetlands loss and deterioration.	USGS	FY91

A - Marine    B - Estuarine    C - Riverine    D - Lacustrine    E - Palustrine

## **Index by Wetland Type (Cowardin)**

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# **Format for Submission of Research Projects for the National Summary of Ongoing Wetlands Research by Federal Agencies:**

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**SITE:** Location by state (abbreviation); e.g. AL, LA

**TYPE:** One of five wetland types from Cowardin et al. (A-Marine, B-Estuarian, C-Riverine, D-Lacustrine, E-Palustrine)

**PRINCIPAL INVESTIGATOR:** Name  
Agency  
Address  
Phone Number

**COOPERATORS:** Name  
Agency

**TITLE OF WORK:** Self-explanatory

**OBJECTIVES:** Brief and succinct statement of work objectives; limit to short bullets and no more than 20-25 words.

**FUNDING SOURCE:** Self-explanatory

**PROJECT START DATE:** Self-explanatory

**PROJECT ENDING DATE:** Self-explanatory

**SEND COMPLETED FORMS TO:** USAE WATERWAYS EXPERIMENT  
STATION  
CEWES-EP-W (WETLANDS  
RESEARCH PROGRAM)  
3909 HALLS FERRY ROAD  
VICKSBURG, MS 39180-6199

## **Abbreviations Used in Report**

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DNR - Department of Natural Resources  
DOE - Department of Energy  
DOT - Department of Transportation  
FHWA - Federal Highway Administration  
NASA - National Aeronautics and Space Administration  
NMFS - National Marine Fisheries Service  
NOAA - National Oceanic and Atmospheric Administration  
NPSP - Non-Point Source Pollution  
SCS - Soil Conservation Service  
USACE - U.S. Army Corps of Engineers  
USAEE - U.S. Army Engineer  
USAEWES - U.S. Army Engineer Waterways Experiment Station  
USBR - U.S. Bureau of Reclamation  
USDA - U.S. Department of Agriculture  
USDI - U.S. Department of the Interior  
USEPA - U.S. Environmental Protection Agency  
USFS - U.S. Forest Service  
USFWS - U.S. Fish and Wildlife Service  
USGS - U.S. Geological Survey  
USNPS - U.S. National Park Service

# REPORT DOCUMENTATION PAGE

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